

WHERE ARE WE GOING?

City Light Review Panel

BENJAMIN RUSHWALD P.E.
TECHNOLOGY INNOVATION DIVISION
February 28, 2017

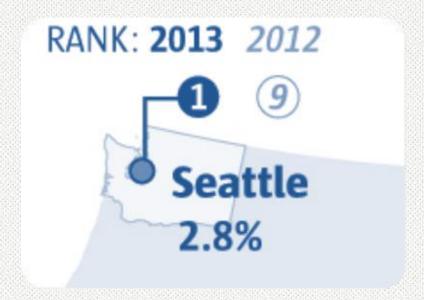


Where are we today?

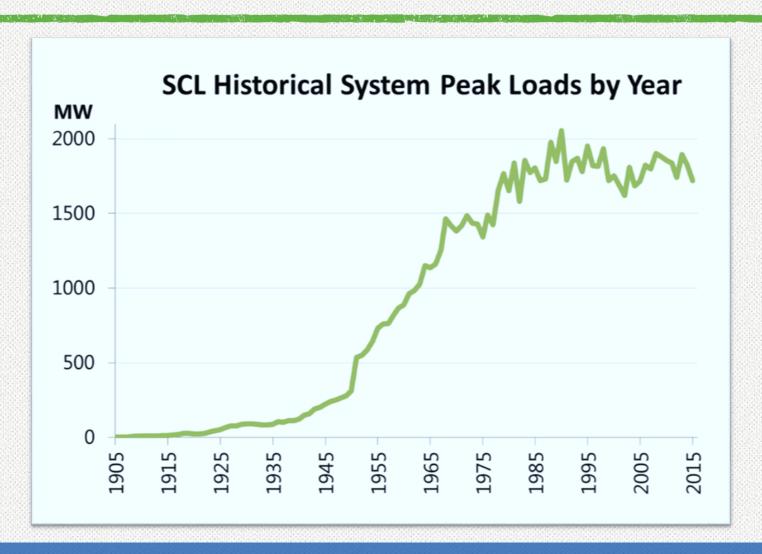
The Gross Domestic Product is **up 12%** since 2007, while energy use is **down 3.6%**-Bloomberg New Energy Finance; Feb. 9 2017

ONE OF THE FASTEST GROWING CITIES

 According to 2013 census data, Seattle is the fastest growing big city in the U.S.



SEATTLE CITY LIGHT PEAK LOADS BY YEAR



CARBON NEUTRAL SEATTLE BY 2050





CUSTOMERS WANT INNOVATION

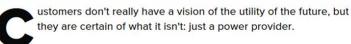


FEATURE

Survey says: Customers want innovation. How can utilities deliver?

Utilities want more flexibility. Customers want new apps. It's a win-win.

AUTHOR @TeamWetDog



-UtilityDive

TECHNOLOGY INNOVATION ROAD MAP WHAT THE FUTURE HOLDS



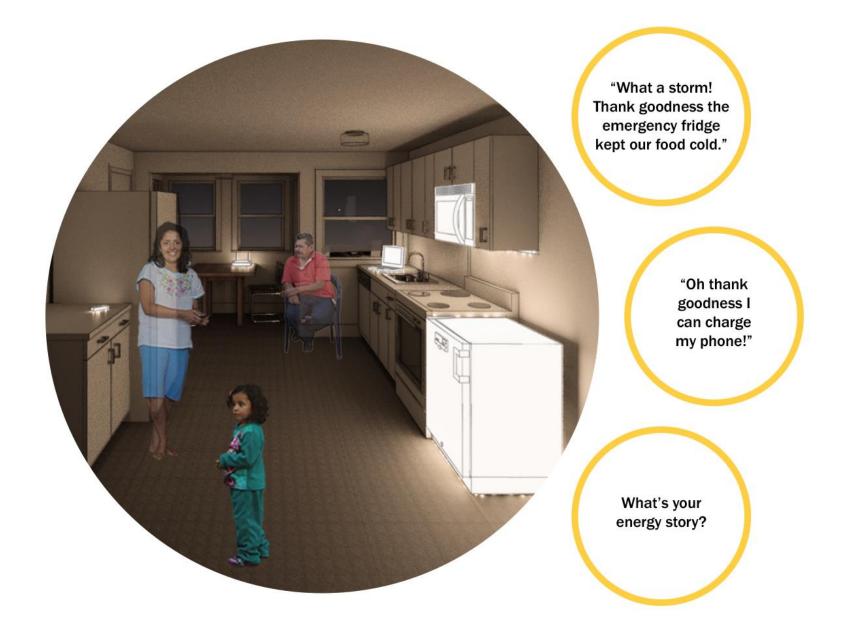
The Stone Age didn't end for lack of stone, and the oil age will end long before the world runs out of oil.



- Sheik Ahmed Zaki Yamani







MICROGRID SERVICES

Possible Devices Available During Outages	
Cell Phones	3 per home
Laptop	1 per home
Heat Pump	1 per home
LED Lighting	6 per home
Refrigerator	1 per home
Wireless Router	1 per home
Microwave	1 hr/day

For 20 homes:

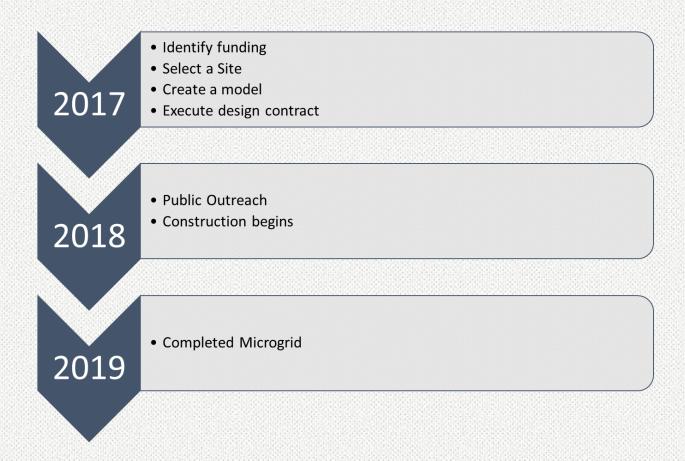
- Loads can be met for 24hrs
- Additional time based on Solar availability



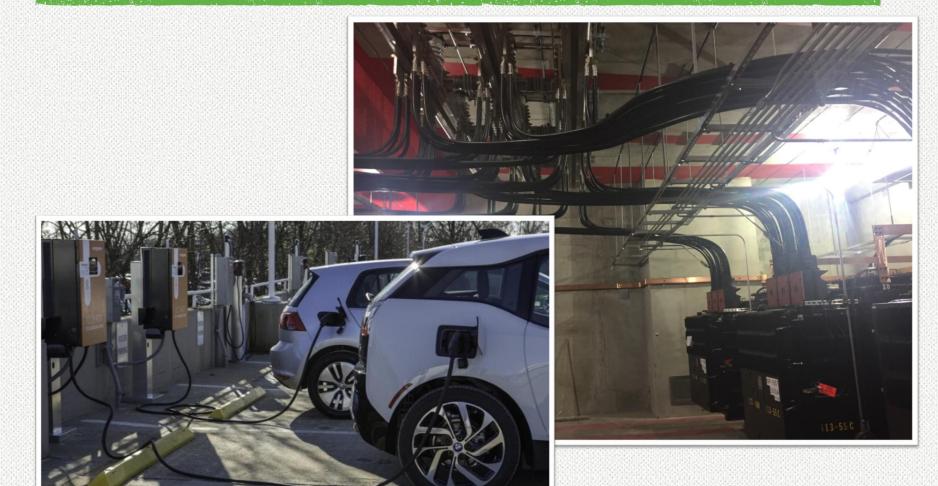
680 kWh/200 kW



MICROGRID PROJECT MILESTONES & BUDGET



CHARGING INFRASTRUCTURE





PUBLIC-PRIVATE PARTNERSHIPS





OUR VISION

To set the standard—to deliver the best customer service experience of any utility in the nation.

OUR MISSION

Seattle City Light is dedicated to exceeding our customers' expectations in producing and delivering environmentally responsible, safe, low-cost and reliable power.

OUR VALUES

Excellence, Accountability, Trust and Stewardship.

